CLAIMS:

1.   A method for correcting defects in X-ray images (R) with the aid of a defect map (D), comprising the steps:

a)   classification of picture elements (p) on an X-ray image (I) which has been pre-corrected with the current defect map (D) as "potentially defective" if their value (W(p)) differs from the interval ([G_u, G_o]) of the picture element values in a neighborhood (n(p)) assigned to it by a specified degree, and the saving of the picture elements (p), thus classified in a candidate map (C_map);

(b)   refreshing the defect map (D) with all the picture elements (p) from the candidate map (C_map) which have been classified as "potentially defective" in several X-ray images (I) and which also fulfill other criteria, where appropriate;

(c)   correction of further X-ray images (R) with the aid of the refreshed defect map (D).

2.   A method according to claim 1, characterized in that together with the picture elements (p) classified as "potentially defective", the image parameters of the relevant X-ray image (I) are saved in step a), and that each different defect maps are generated for different ranges of values of the specified image parameters.

3.   A method according to claim 2, characterized in that the image parameters relate to the beam quality, the dose, the detector temperature and/or the image geometry.

4.   A method according to claim 1, characterized in that the value (W(p)) of a picture element (p) in an X-ray image (I) classified as "potentially defective" is corrected in dependence on the values of its neighboring picture elements (n(p)).

5.   A method according to claim 1, characterized in that an X-ray image (I) is corrected once again on the basis of the current defect map (D) and the candidate map (C_map).

6. A method according to claim 1, characterized in that the neighborhood (n(p)) assigned to a picture element (p) is defined such that it permits the detection of mutually neighboring defective picture elements.

5 7. A method according to claim 6, characterized in that the neighborhood (n(p)) assigned to a picture element (p) comprises those picture elements (p) from a predefined environment whose picture element value lies at least a specified number n of orders of magnitude below the maximum and/or minimum for all the picture element values in the entire environment.

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8. A method according to claim 1, characterized in that the classification in step a) excludes those picture elements for whose environment the values of the picture elements lie outside a predefined range (W_{min}, W_{max}).

15 9. A method according to claim 1, characterized in that the picture elements (p) correspond to individual pixels or groups of pixels, in particular to rows or columns of pixels.

10. A method according to claim 1, characterized in that a picture element (p) is classified as "potentially defective" if its value (W(p)) is below the minimum or above the

20 maximum of the values of the picture elements in its neighborhood (n(p)).

11. A method according to claim 1, characterized in that the specified criteria in step b) comprise the following: that the picture element (p) has at least been examined in a specified number of X-ray images (I), that the picture element (p) has been classified as

25 "potentially defective" in at least a specified number of cases, and/or that the picture element (p) has been classified as "potentially defective" in at least a specified percentage of the cases examined.

12. A method according to claim 1, characterized in that the defect map (D) is

30 refreshed continuously with the aid of the X-ray images (I).

13. Data-processing equipment to correct defects in X-ray images (R) with the aid of a defect map (D), wherein the data-processing equipment is equipped to perform the following steps:

a)   classification of picture elements (p) on an X-ray image (I) which has been
pre-corrected with the current defect map (D) as "potentially defective" if their value (W(p))
differs from the interval ([G_u, G_o]) of the picture element values in a neighborhood (n(p))
assigned to it by a specified degree, and saving of the picture elements (p), thus classified in a
candidate map (C_map);

(b)   refreshing the defect map (D) with all the picture elements (p) from the
candidate map (C_map) which have been classified as "potentially defective" in several X-
ray images (I) and which also fulfill other criteria, where appropriate;

(c)   correction of further X-ray images (R) with the aid of the refreshed defect map (D).